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DATE MAILED: 02/23/2010

NOTICE OF ALLOWANCE AND FEE(S) DUE

23869 7590 02/23/2010 HOFFMANN & BARON, LLP 6900 JERICHO TURNPIKE

SYOSSET, NY 11791

EXAMINER

AMARI, ALESSANDRO V

ART UNIT PAPER NUMBER

2872

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,108	05/02/2006	Andreas Schilling	1093-153 PCT/US	2242

TITLE OF INVENTION: DIFFRACTIVE SECURITY ELEMENT COMPRISING A HALF-TONE PICTURE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	05/24/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION NOT THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. In equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

appropriate. All further indicated unless corrects maintenance fee notifica	correspondence includir ed below or directed oth	ig the Patent, advance of terwise in Block 1, by (a	rders and notification of r a) specifying a new corres	pondence address; a	ll be i	nailed to the current (b) indicating a sepa	correspon rate "FEE	dence address as ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.				
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								(Signature)
								(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTO	RNEY DOCKET NO.	CONFIR	MATION NO.
10/578,108	05/02/2006		Andreas Schilling		109	93-153 PCT/US		2242
	: DIFFRACTIVE SECU	RITY ELEMENT COM	PRISING A HALF-TONE					
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nonprovisional	NO	\$1510	\$300	\$0		\$1810	0	05/24/2010
EXAM	IINER	ART UNIT	CLASS-SUBCLASS					
AMARI, ALE	SSANDRO V	2872	359-002000	•				
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Change of correspondence address (or Change of Correspondence Address form PTOVSB/122) attached. "Fee Address" indication (or "Fee Address" Indication form PTOVSB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			(I) the names of up to or agents OR, alternativ (2) the name of a singl registered attorney or a 2 registered patent atto	or printing on the patent front page, list he names of up to 3 registered patent attorneys gents OR, alternatively, he name of a single firm (having as a member a 2 stered attorney or agents) and the names of up to gistered patent attorneys or agents. If no name is 3				
PLEASE NOTE: Uni recordation as set fort (A) NAME OF ASSI	less an assignee is ident h in 37 CFR 3.11. Comp GNEE		THE PATENT (print or typ data will appear on the p T a substitute for filing an (B) RESIDENCE: (CITY inted on the patent):	atent. If an assigned assignment. and STATE OR CO	OUNT			
4a. The following fee(s)			o. Payment of Fee(s): (Plea	. C				
Issue Fee	are submitted.	***	A check is enclosed.	se msi reappiy any	prev	lously paid issue fee	snown abo	wej
☐ Publication Fee (No small entity discount permitted) ☐ Payment by credit card. Form PTO-2038 is attached.								
Advance Order -	# of Copies		The Director is hereby overpayment, to Depo	authorized to charge sit Account Number	e the r	equired fee(s), any de enclose a	ficiency, o n extra cop	r credit any by of this form).
5. Change in Entity Sta	tus (from status indicate is SMALL ENTITY statu		b. Applicant is no lon					
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Authorized Signature								
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This collection of inform an application. Confiden submitting the complete this form and/or suggests Box 1450, Alexandria, V Alexandria, Virginia 223	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but 'irginia 22313-1450. DC k13-1450.	FR 1.311. The informatis U.S.C. 122 and 37 CFR USPTO. Time will vary den, should be sent to the ONOT SEND FEES OR	on is required to obtain or r 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS TO	etain a benefit by the imated to take 12 m idual case. Any con r, U.S. Patent and T O THIS ADDRESS.	e publ inutes iment radem SENI	ic which is to file (an- to complete, includii s on the amount of ti- lark Office, U.S. Dep O TO: Commissioner	by the US g gathering ne you req artment of for Patents	SPTO to process) g, preparing, and juire to complete Commerce, P.O. s, P.O. Box 1450,

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10/578,108	05/02/2006	Andreas Schilling	1093-153 PCT/US	2242	
23869 75	90 02/23/2010		EXAM	UNER	
HOFFMANN & BARON, LLP			AMARI, ALESSANDRO V		
6900 JERICHO TURNPIKE			ART UNIT	PAPER NUMBER	
SYOSSET, NY 11791			2072		

2872 DATE MAILED: 02/23/2010

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 785 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 785 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)					
10/578,108	SCHILLING ET AL.					
Examiner	Art Unit					
AL ESSANDRO AMARI	2872					

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to amendment of 11/27/2009.
- The allowed claim(s) is/are 1-11,13,14 and 18-58.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - - 1. T Certified copies of the priority documents have been received.
 - Certified copies of the priority documents have been received in Application No. _____
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) 🔲 including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2.
 Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- Examiner's Comment Regarding Requirement for Deposi of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date .
- 7. Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. 🗌 Other ___

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EXAMINER'S AMENDMENT

 An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Tony Gayoso on 2 February 2010.

The application has been amended as follows:

Amend claim 13, line 1, to change dependency from "claim 12" to --claim 1-
Amend claim 14, line 1, to change dependency from "claim 12" to --claim 1—

Allowable Subject Matter

- Claims 1-11, 13, 14 and 18-58 are allowed.
- 3. The following is an examiner's statement of reasons for allowance:

Claim 1 is allowable for at least the reason, "wherein the spatial frequency of linear diffraction gratings in the pattern structures is selected from the range of 800 lines/mm to 2000 lines/mm" as set forth in the claimed combination. Claims 2-11, 13, 14, 56 and 57 are allowable due to their dependence on claim 1.

Claim 18 is allowable for at least the reason, "wherein the first and second microscopically fine surface structures are linear diffraction gratings with spatial frequencies from the range of 150 lines/mm to 2000 lines/mm" as set forth in the

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claimed combination. Claims 19-23, 27, 31-36 are allowable due to their dependence on claim 18.

Claim 24 is allowable for at least the reason, "wherein the first microscopically fine surface structures and the second microscopically fine surface structure are meandering diffraction gratings whose spatial frequencies are selected from the range of 150 lines/mm to 2000 lines/mm, the meandering diffraction gratings of second microscopically fine surface structure including grating vectors having a range in the azimuth, and the meandering diffraction gratings of the background fields and the image element patterns differ at least in the azimuth range of the grating vectors" as set forth in the claimed combination. Claims 25, 26, 38-43 and 58 are allowable due to their dependence on claim 24.

Claim 28 is allowable for at least the reason, "wherein the background fields as the first microscopically fine surface structure have a structure from the group which includes flat mirrors, cross gratings with spatial frequencies of greater than 2300 lines/mm and motheye structures" as set forth in the claimed combination. Claims 30 and 44-49 are allowable due to their dependence on claim 28.

Claim 29 is allowable for at least the reason, "wherein the background fields as the first microscopically fine surface structure have a linear diffraction grating with a spatial frequency from the range of 150 lines/mm to 2000 lines/mm and grating vectors which are oriented in mutually parallel relationship" as set forth in the claimed combination. Claims 37 and 50-55 are allowable due to their dependence on claim.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALESSANDRO AMARI whose telephone number is (571)272-2306. The examiner can normally be reached on Monday-Friday 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on (571) 272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ava 03 February 2010

/Alessandro Amari/ Primary Examiner, Art Unit 2872